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# Before the FEDERAL COMMUNICATIONS COMMISSION FILE COPY ORIGINAL Washington, D.C. 20554 RECEIVED

In the Matter of	)	OCT - 3 1997	•
	)	FEDERAL COMMUNICATIONS COMMISSION OFFICE OF THE SECRETARIAN	
Advanced Television Systems	) MM Docket No. 87-268	OFFICE OF THE SECRETARY	
and Their Impact upon the	)	OTE IAHY	
Existing Television Broadcast	)		
Service	)		

To: The Commission

## REPLY TO KOLO-TV OPPOSITION TO SUPPLEMENT TO PETITION FOR RECONSIDERATION

Sierra Broadcasting Company ("Sierra"), licensee of KRNV(TV), Reno, Nevada, hereby replies to the September 23, 1997 pleading filed by Stephens Group, Inc. ("KOLOTV"), opposing Sierra's September 8, 1997 Supplement to Petition for Reconsideration. Sierra submits that KOLO-TV's arguments fail to refute Sierra's demonstration that its requested change in DTV channel allotment is necessary to avoid significant service losses to KRNV's viewers.

#### I. Background

On April 26, 1997, the Federal Communications Commission released its <u>Sixth Report</u> and <u>Order</u> establishing a Table of Allotments for digital television channels. One of the Commission's stated goals for its table was to provide DTV service areas that would replicate as closely as possible the NTSC service currently provided to viewers in order that they could continue to have access to the stations upon which they currently rely.

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Notwithstanding this expressed purpose, as to viewers in the Reno, Nevada market, the Commission's table fell far short of its intended purpose. KRNV, Reno, was allotted DTV Channel 33, which would give KRNV a DTV coverage of only 59.4 percent of the area that it currently serves as a NTSC station. In terms of population, KRNV would have only 71 percent replication of its NTSC service. Some 110,000 persons in the station's current viewership would lose Grade B service. KRNV, indeed, has the dubious distinction of having the worst DTV to NTSC replication of any television station in the country.

Sierra found a solution to this extraordinary dilemma. Following release of OET Bulletin 69, Sierra's engineers were able to determine that DTV Channel 9 could be used for KRNV if it were located on Slide Mountain, near Reno. As Sierra noted, negotiations were already underway to develop that area as a community antenna site. Although another Reno station, KOLO-TV, currently operates on NTSC Channel 8, concerns for adjacent channel interference would be negated because KOLO-TV already is located on Slide Mountain, and, thus, the two stations would be co-located.

## II. KOLO-TV Fails to Demonstrate That Sierra's Proposal Is in Any Way Inconsistent with Commission Rules or Policy

KOLO-TV, which has not, to Sierra's knowledge, previously registered any complaint about its own DTV allotment, now suggests that Channel 9 be awarded to it instead. It argues first that DTV Channel 9 would cause co-channel interference to KQED(TV), San Francisco. KOLO-TV fails to note, however, that Sierra's proposed Channel 9 location would be fully consistent with the new spacing rules, Section 73.623, announced in the Sixth Report and

Interestingly, KOLO-TV fails to explain why the supposed interference would not be (Continued...)

Order. As demonstrated in the attached engineering statement of D.L. Markley and Associates, assuming typical Slide Mountain coordinates, a KRNV DTV operation on Channel 9 would meet the required 273.6 kilometer spacing to KQED. The Commission has stated that no further demonstration is required: "[W]e are adopting our spacing proposals as the criteria for adding future DTV allotments. Geographic spacing provides a clear and simple measure of acceptability of an allotment proposal without the need to engage in extensive analysis of interference and has been used successfully in the television service for many years." Sixth Report and Order at ¶ 221. KOLO-TV has shown nothing to indicate why the Commission should impose a different standard here.

KOLO-TV also suggests that, as KOLO-TV's competitor, Sierra would be disinclined to cooperate in instances of adjacent channel interference. KOLO-TV cites no basis for determining that Sierra -- or any licensee -- would wilfully create or permit interference.

Sierra submits that co-ownership of adjacent channel stations is not addressed in the Sixth Report and Order. Although KOLO-TV cites paragraphs 85 and 90 of the Sixth Report and Order in support of its theory, those paragraphs say nothing about the ownership of adjacent channel stations. Indeed, paragraph 90 speaks instead to the desirability of maximum replication. Sierra notes that the DTV Table of Allotments includes many examples of proposed adjacent channel operation where the two stations are independently owned. The Los Angeles market, for example, will have DTV Channel 59 operating adjacent to the independently owned NTSC Channel 58 and DTV Channel 8 next to the independently owned

<sup>(...</sup>Continued) created if KOLO-TV used Channel 9 instead of Sierra.

NTSC Channel 9. Clearly, the Commission has recognized the acceptability of such a situation.

Moreover, KOLO-TV has not, to Sierra's knowledge, previously requested Channel 9 in the form of a petition for reconsideration, nor has it previously alerted the Commission to any dissatisfaction with its allocation of DTV Channel 23. KOLO-TV should not now be allowed to let another licensee do its exploratory work and then claim the results for its own.

KOLO-TV's final assertion is that Sierra's specification of the Slide Mountain site is procedurally inappropriate in the current rulemaking context because its impact on other broadcasters would be difficult to estimate. It cites no authority for this proposition. Sierra believes, however, that the Commission's technical staff is capable of coping with the required analysis, which should be no more complex than the analysis that is required when any licensee requests a different channel. In addition, it would be more administratively efficient to consider Sierra's proposals as a unit, rather than breaking them up as KOLO-TV suggests.

Moreover, Sierra submits that there are important public interest considerations to offset whatever procedural impediments may be involved. First, the proposed use of a community antenna site would be consistent with long-standing FCC policies and environmental principles favoring co-location of RF facilities. Second, the extraordinary nature of the service losses that would be caused were KRNV forced to remain on DTV Channel 33 warrants whatever slight flexibility may be required in the application of FCC procedures in order to avoid curtailing service to the 110,000 persons in the projected loss area. As stated in its initial Petition for Reconsideration, if Sierra cannot change channel and location, KRNV will not survive the transition to digital television.

#### III. Conclusion

For the reasons stated herein, Sierra submits that the arguments advanced by KOLO-TV should be summarily rejected and that the Commission should modify its DTV Table of Allotments as requested in Sierra's August 22, 1997 Supplement.

Respectfully submitted,

SIERRA BROADCASTING CORPORATION

y \

James R. Bayes Jerry V. Haines

WILEY, REIN & FIELDING

1776 K Street, N.W.

Washington, D.C. 20006

(202)429-7000

Its Counsel

Dated: October 3, 1997

#### ENGINEERING STATEMENT

The following engineering statement and attached exhibits have been prepared for Sierra Broadcasting ("Sierra"), licensee of KRNV(TV) at Reno, Nevada, and are in support of their Reply Comments to "Opposition of KOLO-TV to Sierra Broadcasting" as filed by Stephens Group, Inc., licensee of KOLO-TV at Reno, Nevada ("KOLO-TV").

Sierra has filed comments concerning the DTV Table of Allotments. In particular, Sierra has requested that channel 9 be allocated to Reno, Nevada for use as a DTV facility and that the allotment of channel 9 be assigned to KRNV as its digital facility. In its comments, Sierra requested that the allocation of channel 9 be made at a different location than the existing NTSC station.

It was clearly stated in those comments that the requested coordinates were in an area being developed as a new community antenna site to be used by multiple broadcasters in the Reno area. A group of stations has been organized which is currently working with the Forest Service to develop that site. The owners

of Sierra have already provided funds to be used by the Forest Service in preparing the necessary documentation for site development. It is apparent that the coordinates used were not in an effort to move "closer to the larger California markets", as claimed by KOLO-TV but were in an effort to utilize the community site where other stations will be located in the future.

The coordinates which were specified were correct. However, it is not known if the station will actually be located at those exact coordinates. The final coordinates for the station will depend upon the site development work and the exact location in the new site where at least one tower will be erected. It is anticipated that the coordinates are accurate within three seconds of both latitude and longitude.

Greater accuracy is not needed for the allocation.

The coordinates which were specified plot at 9630 feet

(2935 meters) above mean sea level. In the engineering

statement provided by KOLO-TV, reference is made to the fact
that the antenna would appear to be below ground. Ob
viously, such was not the case. The elevation for

the site was taken from a 3" database. The computerized databases are often in error when it comes to the exact elevation of particular points. It is respectfully submitted that the center of the antenna would be closer to 9725 feet (2964 meters) above mean sea level.

In their comments, KOLO-TV asserts that the Commission assumed that it would be preferable to allocate adjacent DTV channels to existing NTSC stations. In this particular case, KOLO-TV currently operates on channel 8 and was assigned UHF channel 23 for its DTV facility. According to the Sixth Report & Order, that resulted in a 97.62 area match. KOLO-TV would loose essentially nothing in service as it changed to DTV. On the other hand, KRNV, which currently operates on channel 4, was alloted channel 33. The resultant area match was only 59.4% which is the lowest of any market in the United States. KRNV would have suffered the loss of 100,000 people in its service area.

From an engineering point of view, there is absolutely no reason why KOLO-TV would be preferred for the allocation as opposed to Sierra. KOLO-TV argues that KRNV cannot properly control its frequency or control

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its transmitter. The reason they give for that determination is that the DTV site would be 33 kilometers from the existing NTSC site. However, no where in any comments has Sierra suggested that they would be controlling the DTV site from the NTSC site. It would be much more reasonble to assume that the DTV site would be controlled from the studio location. In any case, the 33 kilometer distance means absolutely nothing. The control system does not function in a different fashion whether the path length is 33 kilometers or 1 kilometer. The worst case would be where path fades caused the STL path to become unusable. In such a case, if wire lines could not take over, the transmitter would immediately be placed into an inoperative condition by the fail safe circuitry of the remote control system. There is no basis whatsoever for KOLO-TV to suggest that Sierra could not properly control its transmitter.

In the engineering comments, KOLO-TV argues that significant interference would be caused to KQED. In their comments, it would appear that KOLO-TV is conceding that KQED would be fully spaced to the Slide Mountain

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site for the addition of a new NTSC channel. This was pointed out in the original comments. No detailed interference study was done with respect to KQED because of the fact that it would be fully spaced. However, an interference study utilizing the Longley-Rice propagation model was completed and the information was provided to the Commission. It is noted that the interference numbers projected by KOLO-TV are not in accordance with the numbers that were the result of the study completed by duTreil, Lundeen & Rackley and contained in the original Sierra comments.

It is respectfully submitted that the interference that KOLO-TV estimates to KQED is not correct. It is further submitted that KQED is fully spaced to the proposed DTV site using the spacing contained in the Commission's Rules and Regulations. However, in an abundance of caution, a different antenna pattern has not been selected. The attached data shows a Harris directional antenna which will soon be proposed for use by NTSC for KRNV at the same site as proposed for the DTV allocation. That application is currently being prepared and will be filed with the Commission within the next week. It is proposed that exactly

the same pattern be utilized for the NTSC pattern as for the DTV pattern. The proposed pattern would provide an additional 8 dB. of protection to KQED viewers. Obviously, that would eliminate any possible interference that might be calculated to exist using the antenna contained in the original comments.

It is noted that the ratio of maximum to minimum for the antenna contained in the attached exhibits is grater than the 10 dB. specified in the Commission's Rules and Regulations. However, the appropriate waiver will be requested. It is noted that the Commission has rountinely granted waivers of the 10 dB. ratio in the past where adequate reason existed to utilize the greater directional characteristic.

Again, it should be noted that the tightening of the directional pattern is to provide even more protection than would otherwise be required to KQED.

Based upon the mileage involved, no protection is required to KQED as the proposed DTV allotment would be fully spaced to that station. However, by utilizing the directional antenna shown in the attached exhibits,

or one from a different manufacturer with essentially the same pattern, approximately 16 dB. of protection has been provided to KQED.

It is apparent that the proposed facility would be in accordance with good engineering practice and with the goals set forth by the Commission in the Sixth Report & Order.

The preceding statement and attached exhibits have been prepared by me or under my direction and are true and correct to the best of my knowledge and belief.

Donald L. Markley,

Subscribed and sworn to before me this 2 Day of

1997

Notary Public

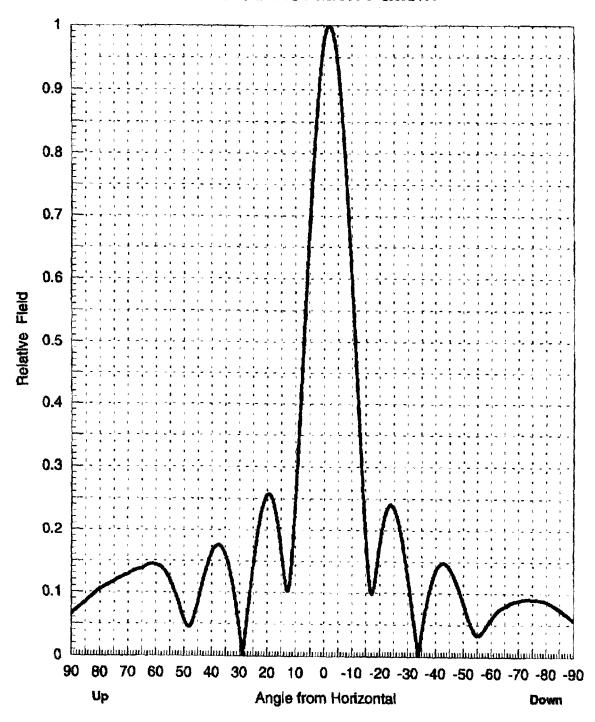
My commission expires:

OFFICIAL SEAL SHARON KAY DOTSON NOTARY PUBLIC, STATE OF ILLINOIS MY COMMISSION EXPIRES 3-25-2001





## **Calculated Elevation Pattern**



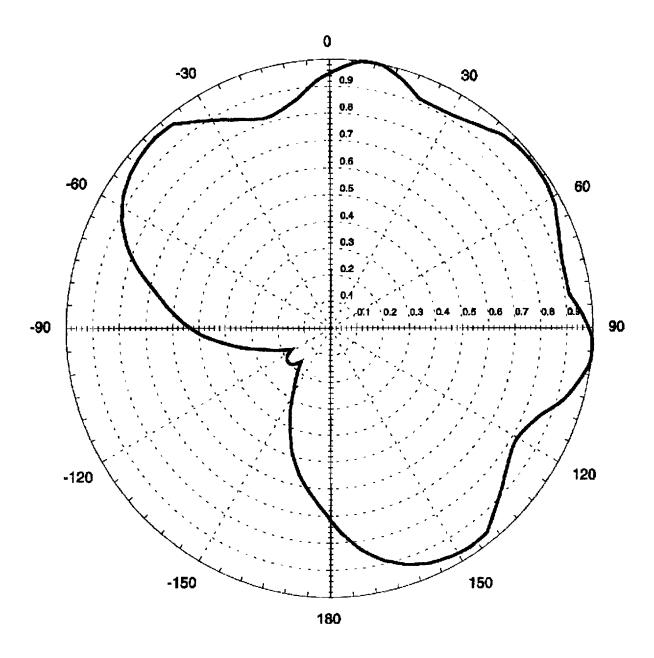
Series: TAD

Harris Pattern No.: 7272E01H





### Calculated Relative Field Pattern



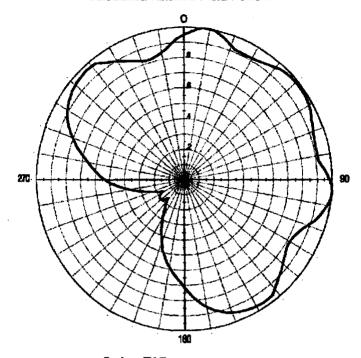
Series: TAD

Harris Pattern No.: 7272A01H





#### Calculated Relative Field Pattern



Series: TAD Harris Pattern No.: 7272AD1H

CHANNEL 4 TAD-4MA-9/12 HORIZONTAL RADIATION PATTERN

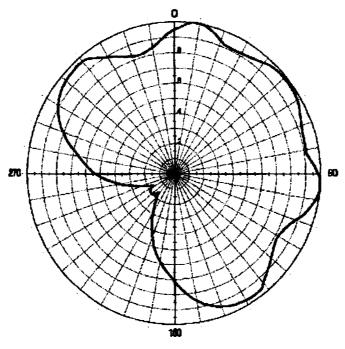
Azimuth	Relative	Azimuth	Relative		Azimuth	Palative
Angle, deg	Amplitude	Angle, deg	Amplitude		Angle, deg	Amplitude
0.0	0.949	75.0	0.918		150.0	0.966
5.0	0.987	78.0	0.914		155.0	0.955
9.0	1.000	90.0	0.915	i	160.0	0.934
10.0	0.999	85.0	0.942		165.0	0.900
15.0	0.976	90.0	0.983		170.0	0.853
20.0	0.933	95.0	1.000		175.0	0.790
25.0	0.914	100.0	0.960		180.0	0.715
26,0	0.914	105.0	0.941		185.0	0.647
30.0	0.917	110.0	0.886		190.0	0.586
35.0	0.932	115.0	0.841		195.0	0.519
40.0	0.956	120.0	0.820		200.0	0.440
45.0	0.978	121.0	0.819		206.0	0.360
50.0	0.985	125.0	0.832		210.0	0.285
52,0	0.987	130.0	0.862		215.0	0.226
55.0	0.984	136.0	0.900		220.0	0.180
60.0	0.975	140.0	0.944		222.0	0.164
65.0	0.951	145.0	0.988		225.0	0.185
70.0	0.928	147.0	0,970		230,0	0.202

Azimuth	Fleiative
Angle, deg	Amplitude
231.0	0.203
235.0	0.201
240.0	0.178
242.0	0.164
245.0	D.189
260.0	0.236
255.0	0.300
290.0	0.375
265.0	0.457
270.0	0.533
275.0	0.598
280.0	0.659
285.0	0.731
290.0	0.804
295.0	0.864
300.0	0.908
305.0	0.939
310.0	0.957





#### Calculated Relative Field Pattern



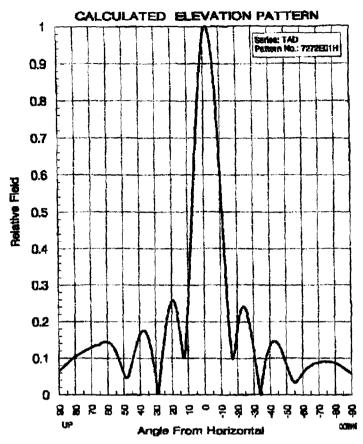
Series: TAD Herris Pattern No.: 7272A01H

**CHANNEL 4 TAD-4MA-3/12 HORIZONTAL RADIATION PATTERN** 

Azimuth	Relative
Angle, deg	Amplitude
315.0	0,968
317.0	0,970
320.0	0,987
325.0	0.934
330.0	0.892
335.0	0.855
340.0	0.827
343.0	0.819
345.0	0.822
350.0	0.848
355.0	0.898







CHANNEL 4 TAD-4MA-3/12 VERTICAL RADIATION PATTERN Elevation Relative

Elevation	Fleiativa
Angle, deg	Amplitude
-5.0	0.938
4.0	0.972
-3.0	0.993
-2.0	1.000
-1.9	1.000
-1.0	0.993
9	0.973
1.0	0.996
2.0	0.887
3.0	0.827
4.0	0.757
5.0	0.679
8.C	0,594
7.6	0.506
8,0	0.418
9.0	0.328
10.0	0.245
11.0	0.171

Elevation	Piciativo
Angle, deg	Amplitude
12.0	0.117
12.8	0.102
13.0	0,104
14.0	0.126
15.0	0.166
16.0	0.201
17.0	0.229
18.0	0.247
19.0	0.256
19.8	0.257
20.0	0.256
21.0	0.247
22.0	0.230
23.0	0.206
24.0	0.177
25.0	0.144
25.0	0.108
27.0	0.070

Angle, deg	Amplitude	
28.0	0.032	
28.9	0.002	
29.0	0.005	
90.0	0.040	
31.0	0.073	
32.0	0.101	
33.0	0.125	
34.0	0.145	
35.0	0.160	
36.0	0.170	
37.0	0.175	
37,6	0.176	
38.0	0.175	
39.0	0.171	
40.0	0.163	
41.0	0.151	
42.0	0.137	
43.0	0.121	

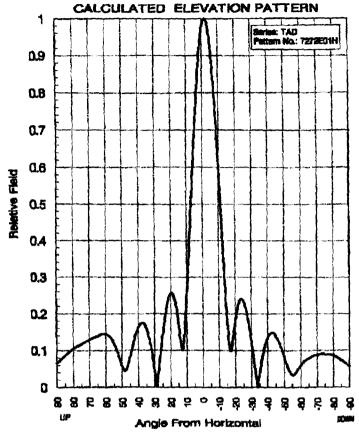
Angle, deg	Amplitude	
44.0	0.103	
45.0	0.085	
46.0	0.067	
47.0	0.053	
48.0	0.046	
48.3	0.046	
49.0	0.048	
50.0	0,058	
51.0	0.071	
52.0	0.684	1
53.0	0.087	
54.0	0.109	
55.0	0.119	
56.0	G.128	
57.0	0.135	
66.0	0.140	
59.0	0.142	}
60.0	0.143	

Elevation Relative

Elevation	Relative
Angle, deg	Amplitude
61.0	0.145
61.9	0.145
62.0	0.145
63.0	0.144
64.0	0.141
85.0	0.137
0.86	0.137
67.0	0.136
0.86	0.134
0.48	0.131
70.0	0.126
71.0	0.127
72.0	Q.125
73.0	0.122
74.0	0.120
75.0	0.117
76.0	Q.115
77.0	0.112







CHANNEL 4 TAD-4MA-3/12 VERTICAL RADIATION PATTERN

Elevation	Relative		Elevation	Relative		Elevation	Fielative
Angle, deg	<b>StudilionA</b>		Angle, deg	Amplitude		Angle, deg	Amplitude
-90.0	0.057		<b>-72.</b> 7	0.091		-55.0	0.033
-89.0	0.061		-720	0.090		-54.0	0,037
-96.0	0.064		-71.0	0.090		-53.0	0.045
-87.0	0.067		-70.0	0.068		-52.0	0.056
-86.0	0.071		-69.0	0,068		-51.0	0.089
-85.0	0.074		-66.0	0.086		-50.0	0.083
-84,0	0.077		-67.0	0,084		-49.0	0.098
-53.0	0.079		-68.0	0.062		-48.0	0.109
-82.0	0.062		-65.0	0.079		-47.0	0.121
-81.0	0.084		-64.0	0.077		-46,C	0.131
-80.0	0.087		-63.0	0.074		-45.0	0.139
-78.0	0.088		-62.0	0.070		-44.0	0.145
-78.0	0.089	}	-81.0	0.065		-43.G	0.148
-77.0	0.090	1	-80.0	0.059		-42.6	0.148
-76.0	0.000		-59.0	0.053		-42.0	0.147
-75.0	0.090		-58.0	0.047		-41.0	0,143
-74.0	0.090		-57.0	0.040		-40.0	0.135
-79.0	0.091		-56.0	0.035	L.	-39.0	0.123

1 KONOM VO
Amplitude
0.107
0.067
0.063
0.037
0.007
0.001
0.024
0.057
0.090
0.123
0.153
0.181
0.205
0,223
0.236
0.241
0.241
0.237

Elevation	Reindys
Angle, deg	Amplitude
-22.0	0.226
-21.0	0.208
-20.0	0.178
-19.0	0.144
-18.0	0,111
-17.1	0.008
-17.0	0.099
-16.0	0.126
-15.0	0.185
-14.0	0.259
-13.0	0,341
-12.0	0.427
-11.0	0.515
-10.0	0.802
-9.0	0.884
-8.0	0.760
-7.0	0.829
-6.0	0.889

#### **CERTIFICATE OF SERVICE**

I, Lorraine Handel, hereby certify that on this 3rd day of October, 1997, I caused copies of the foregoing "Reply to KOLO-TV Opposition to Supplement to Petition for Reconsideration" to be mailed via first-class, postage prepaid mail to the following:

Richard M. Smith, Chief Office of Engineering & Technology Federal Communications Commission 2000 M Street, Room 480 Washington, D.C. 20005

Michael H. Bader, Esq. James E. Dunstan, Esq. Haley Bader & Potts, P.L.C. 4350 North Fairfax Drive Suite 900 Arlington, Virginia 22203-1633

I orraine Handel